

Headquarters U.S. Air Force

Integrity - Service - Excellence

S&E Career Field Update



Mr. Jim Engle
SAF/AQR

U.S. AIR FORCE

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Introduction



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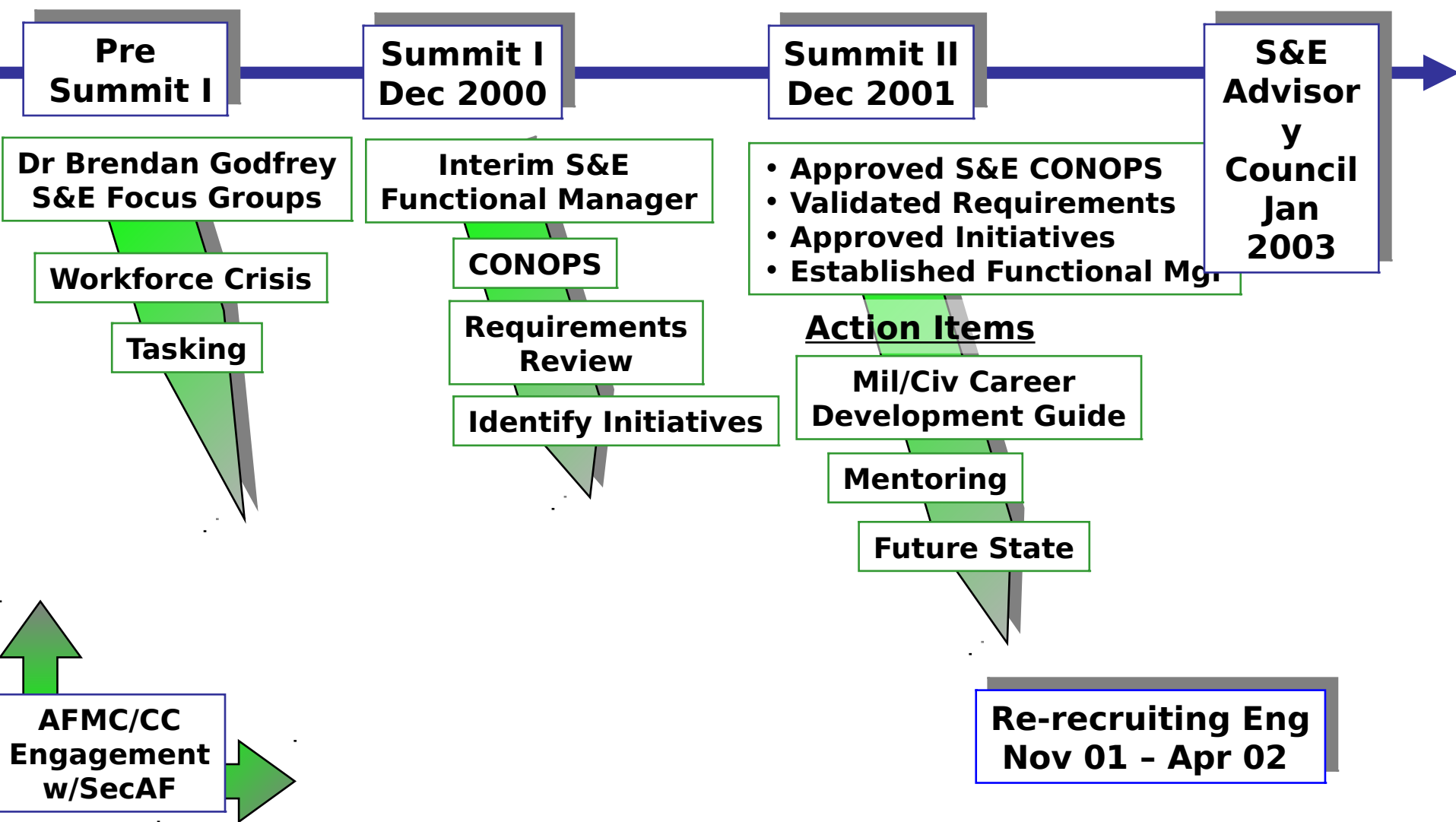
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Introduction: Workforce Shaping Timeline



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Introduction: History

- **Activities aimed at improving the S&E career field have been ongoing since 1999**
 - **Military and Civilian initiatives**
 - **Summits I and II**
 - **Summer Study**
 - **Future Study**
- **Established first S&E Career Field structure**
 - **SAF/AQ - S&E Functional Authority**
 - **SAF/AQR - Functional Management**
 - **SAF/AQRE - S&E Career Field Management**
 - **This team is responsible for Policy, Guidance, and Advocacy in areas dealing with:**
 - **Workforce Shaping, Career Development, Assignments, Accession Targets, Recruiting, Education and Training, Mentoring, and Retention**





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Introduction: History

- **1999 - 2000, focus groups conducted by 311th HSW (Dr. Godfrey)**
 - **300 military and civilian S&Es interviewed at 6 locations**
 - **Results: S&Es felt unappreciated, underpaid, and underutilized**
- **Other symptoms indicating problems within the S&E workforce**
 - **S&Es were the 2 lowest manned non-rated line AFSCs in the AF**
 - **25% civilian workforce eligible to retire in 5 years**
 - **The Space Launch Broad area review (BAR) attributed 76% of failures and major anomalies to engineering deficiencies**
 - **Increase in the number of Class A Mishaps attributable to a lack of engineering applications**
 - **B-1 loss caused by a single point failure unintentionally designed into a modification to the Fire warning and extinguishing panel - caused all four engines to shut down**



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Introduction: History

- These problems encouraged AFMC/CC, Gen Lyles to engage SecAF, thus bringing the SecAF and CSAF into the process

- In Aug 2000, the AFMC/CC took a briefing titled ***A Way Ahead for the S&E Workforce--A View From AFMC*** to SecAF on how to respond to the S&E challenges. With that, the SecAF issued the tasking below

“Have a Science and Engineering Career field Summit . . . **Purpose is two fold, first to show that leadership is engaged on how to create and maintain an S&E Career Field**—this is needed to stop attrition—and **second, to try to understand the obstacles we face to recruiting, training, and retaining S&E** officers *(and civilians)* and refine some *(short term and)* long term solutions.”

F. Whitten Peters, SecAF
24 Aug 00

- This tasking led to Summit I, 11 Dec 2000





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Introduction: History

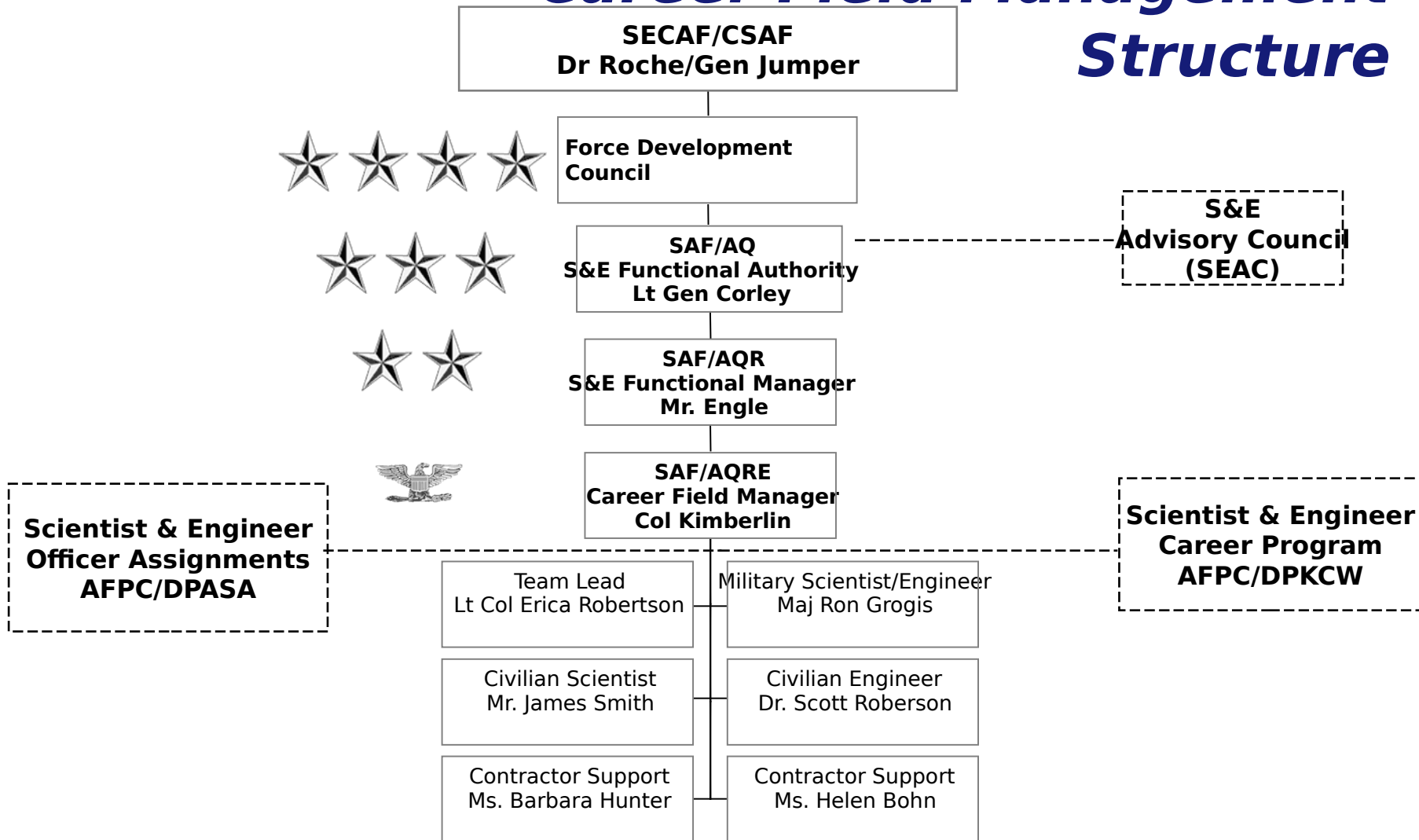
- **S&E Summit I was held in December 2000**
 - Established an interim S&E Functional Manager - SAF/AQ
 - Action to develop an S&E CONOPS
 - Action to conduct an S&E workforce requirements review
 - Identify workforce shaping initiatives
- **S&E Summit II was held on 6 December 2001**
 - SAF/AQ designated as the S&E workforce Functional Manager
 - Action to develop career guidance and mentoring
 - Action to develop the S&E To-Be requirement (Future Study)
 - Leadership reaffirmed importance of an organic S&E workforce
 - S&E manpower authorizations validated



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Introduction:

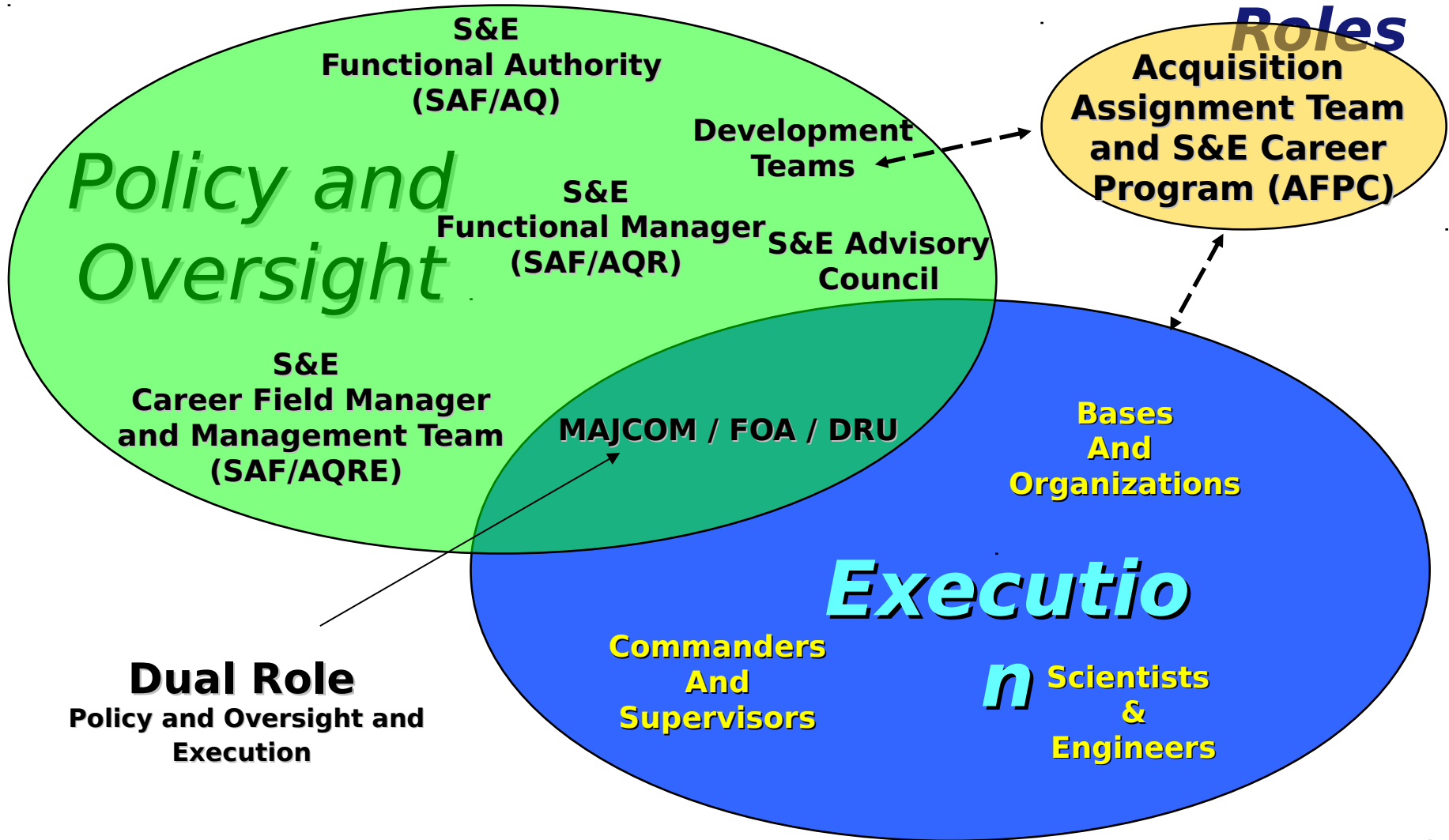
Career Field Management Structure





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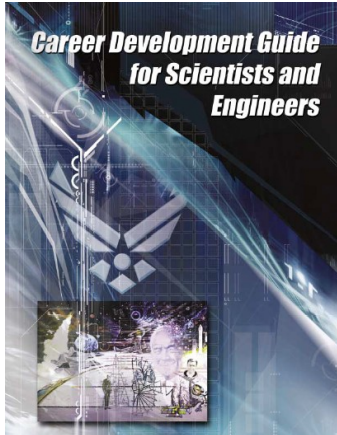
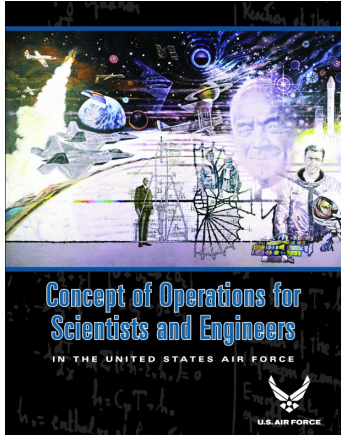
Introduction: Career Development Players and Roles





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Introduction: S&E Resources



- **S&E CONOPS**
 - **Ties S&Es work with higher-level AF documents**
- **S&E Career Development Guide**
 - **Tool for developing careers**
- **S&E Mentoring**
 - **Mentoring from an S&E perspective**
- **S&E Career Opportunities Guide**
 - **Highlights where S&E jobs are**

**All Information available on the S&E Homepage
(<http://www.safaq.hq.af.mil/aqre/se>)**





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Discussion Topics

- **Introduction**
- **Career Development Guide (CDG)**
- **Career Opportunities Guide (COG)**
- **Mentoring**
- **S&E Mil/Civ Recruiting/Retention Initiatives**
- **2003 Military Retention Survey and Pay Comparison**
- **S&E Awards**
- **Career Field Statistics**
- **Scientist and Engineer Advisory Council (SEAC)**
- **Military Force Development**
 - **Development Teams**
 - **Officer Development Plan**
 - **Developmental Education (DE)**
 - **Advanced Academic Degrees**
- **Civilian Force Development**
- **National Security Personnel System (NSPS)**
- **Contact Information**

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S&E Career Development Guide (CDG)



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Career Development Guide (CDG)



Career Development Guide for Scientists and Engineers

- **General information applicable to all AF S&Es**
 - **Not intended to provide detailed career options or paths**
 - **Basically a roadmap to aid S&Es, their commanders, supervisors, and mentors in developing careers for the S&E**
- **Most important aspect--allows all parties to understand the consequences of decisions that are made regarding an individual's careers**
 - **Allows for a mutual understanding of career expectations based on career decisions**
- **Does not guarantee a successful career**
 - **There is no magic formula or golden path that will get you to the highest grades—many factors impact this**
- **CDG was “deployed” to all AF S&Es**
 - **If you did not receive a copy E-mail the S&E Team at SAF.S&E@pentagon.af.mil**

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S&E Career Opportunities Guide (COG)



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S&E Career Opportunities Guide (COG)

- **Web based, designed to assist S&Es in planning their careers**
- **Highlights S&E job opportunities within the AF, Joint and other agencies to suit all career objectives**
 - **To be used in concert with the CDG**
- **Provides information on the organization, approximate number of military and civilian S&E billets at each organization, and a brief description of what the S&Es do there**
 - **Interactive--provides links to the agencies, bases, states, CONUS and Overseas, etc.**
- **Overview of possible job locations to use in career planning**
 - **Availability of jobs (number of positions and locations) may change due to AF needs, and therefore, additional dialogue with AFPC is needed to ensure those jobs are actually available**

http://www.safaq.hq.af.mil/aqre/mentoring/career_guide/introduction.html

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S&E Mentoring Web-Site



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United States Air Force Scientist and Engineer Homepage

Career Development Guide and Mentoring

- [S&E Home](#)
- [Career Development](#)
- [Mentoring Survey](#)
- [S&E Mentoring Home](#)

S&E Mentoring Home Page

Purpose:

The purpose of this site is to provide Commanders, Supervisors, and Mentors with tools they can use to help S&E civilian and military protégés reach their full potential.

The site also provides tools and references for S&Es who are protégés or who desire a mentor.

S&E mentoring is not meant to replace the existing AF Mentoring program, but to supplement it by providing resources that specifically relate to S&Es.

[Commander's
Corner](#)

[Mentor
Resources](#)

[Protégé
Resources](#)

[Career
Development
Guide](#)

[General S&E
Information](#)





S&E Mentoring Web-Site

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- http://www.safaq.hq.af.mil/aqre/mentoring/mentoring_guide.html
- Reinforces the AF Mentoring Program, from an S&E perspective
 - Supplements, but does not replace existing AF Mentoring Program, Policy and Directives as established per AFPD 36-34, Air Force Mentoring Program and AFI 36-3401, Air Force Mentoring
- Contains reference information and resources for commanders, mentors, and protégés with a focus on S&Es
 - Information and resources are generic in nature, can be used for mentoring all employees
 - Does not provide step-by-step AF S&E mentoring processes and procedures
 - Organizations are responsible for establishing and managing their own mentoring program
- Does not contain database of mentors and protégés
- The site is divided into four sections:
 - Commander's Resources; Mentor Resources; Protégé Resources; General S&E Information



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S&E Mil/Civ Recruiting/Retention Initiatives



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Other S&E Efforts

Military Initiatives

- **Critical Skills Retention Bonus (CSRB)**
- **1-Year AFROTC**
- **Technical Degree Sponsorship Program (TDSP)**
- **Airman Education & Commissioning Program (AECP)**

Civilian Initiatives

- **Group Retention Allowance**
- **Civilian Career Program Relocation Bonus**
- **Civilian Recruitment Bonus for College Recruits**
- **Civilian Student Loan Repayment Program**
- **Civilian S&E Recruitment Bonus**
- **Civilian S&E retention Allowance**
- **Co-Op Central Funding**



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Critical Skills Retention Bonus (CSRB)

- **Description**: Authority to pay retention bonus, max of \$200K in a career, to officers holding critical skills.
- **Purpose**: Monetary incentive to increase retention of officers with critical skills
- **Recipients**: Offered in FY03 as a \$10K per year for max of 4 years to 5 critical AFSCs in 4-13 CYOS (61, 62, 63, 32 and 33 AFSCs)
- **Methodology**: Cash payment made upon signing contract and anniversary payments made annually
- **FY04 Budget**: \$18.5 M for S&E and PM continuing contracts
 - Congress only provided enough funding for 61, 62 and 63 AFSCs. \$27.4 M cost for 32 and 33 AFSCs taken out of hide.
 - No funding available for new contracts in FY04



One-Year AFROTC Program

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- **Description:** Developed to fix overall ROTC shortfall by allowing college Juniors to sign up for AFROTC in senior year
 - Previously only a 2- or 4-year program
 - Open to all degrees, with emphasis on Critical AFSCs
 - Program originally planned only for FY02/03
- **Purpose:** Capture college students with critical skill degrees
- **Recipients:** College students with technical degrees
 - FY04 Program includes 3 Electrical Engineers, 1 Civil Engineer, 2 Environmental Engineers
 - FY03 produced 30 Tier 1-3 tech majors
- **FY04 Budget:** N/A - uses dollars already available for scholarships from unfilled positions and/or from cadets who have left AFROTC



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Technical Degree Scholarship Program

(TDSP)

- **Description:** Previously known as College Senior Engineer Program or College Senior Sponsorship Program (CSSP)
 - Enlist as E-3, continue to attend college, enter OTS after graduation
- **Purpose:** Recruit juniors and seniors pursuing engineering degrees
- **Recipients:** College juniors and seniors
- **Methodology:** Students are enlisted as E-3s (but no basic training, etc.) and continue their studies. Sent to OTS for commissioning immediately after graduation
- **FY04 Budget:** ~1.7 M; however cost is “invisible” because it comes out of enlisted pay account



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Airman Education and Training Program (AECPT)

- **Description:** Provides tuition plus salaries (E-5 and above), focused on S&E growth
 - **Goal:** 30-35 graduates per year
- **Purpose:** Target enlisted force as officer candidates_
- **Recipients:** Enlisted personnel with some college who exhibit an aptitude for technical degrees
 - Graduates in FY04 include 12 EEs, 3 Mech, 1 physicist
 - FY05 will have 12 EEs, 3 Mech, 1 chemist
 - FY06 project 7 EEs, 1 Aero, 2 mech, 1 nuclear, 3 physicists
 - Each year also has comp sci, CE and other tech degrees
- **Methodology:** Yearly central selection board. Selectees are immediately promoted to E-5 (if currently junior to that rank), sent to civilian institutions for degree completion. After graduation, sent immediately to OTS for commission.
- **FY04:** \$4.8 M



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Group Retention Allowances (GRA)

- **Purpose: Improve pay comparability with private industry for difficult-to-fill occupations**
 - **Background**
 - **Group Retention Allowances replaced Special Salary Rates**
 - **Targets GS-05 through GS-12**
 - **Up to 10% of basic pay**
 - **Requires annual recertification**
 - **Corporate Structure agreed to partially fund FY06/07**
 - **Air Staff pursuing FY04/05 funding and shortfall for 06/07**
 - **Current Status**
 - **SecAF approved use of Retention Allowances for FY03 and beyond**
-



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Civilian Career Program Relocation Bonus

- **Description:** One-time payment of up to 25% of basic annual salary upon completion of PCS; payments generally range between \$5K - \$10K; minimum 1-yr Service Agreement
- **Purpose:** Monetary incentive to increase interest of high quality employees requiring PCS to historically hard-to-fill positions
- **Recipients:** AF applicants selected for announcements of hard-to-fill positions requiring PCS
- **Methodology:** Cash payment made upon completion of PCS and establishment of residence at new location
- **FY04 Budget:** \$0.9 M



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Civilian Recruitment Bonus for College Recruits

- **Description:** Recruitment Bonus paid to S&E, IT and other PAQs in hard-to-fill occupations/locations; up to 25% of basic annual salary; 1-yr service agreement (SA) for S&Es and ITs, 2-yr SAs for all others
- **Purpose:** Attract high quality college graduates via salaries competitive with industry and meet critical recruitment needs caused by decade of downsizing and projected future losses of critical skills due to retirements
- **Recipients:** Targets high caliber S&E and IT PAQ college recruits
- **Methodology:** Reviewed semiannually based on starting salary comparison with private industry
- **FY04 Budget:** \$1.56 M



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Civilian Student Loan Repayment Program

- **Description**: Repayment of student loans up to \$40K at max of \$6K/yr; employee pays taxes; minimum 3-yr service agreement
- **Purpose**: Recruiting Incentive - agreement serves as retention tool
- **Recipients**: All PAQs and Copper Cap Interns
 - Allocation for S&E PAQs comes from overall Career Programs account
- **Methodology**: Bi-weekly payments directly to lending institution
- **FY04 Budget**: \$6.09 M



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Civilian S&E Recruitment

Bonus

- **Description:** SecAF approved recruitment initiative for civilian S&Es in critical skills areas; up to 25% of basic annual salary; 12-mo SA
- **Purpose:** Attract S&Es into critically undermanned occupational series via job offers competitive with industry
- **Recipients:** New hires in critical S&E occupational series
 - Electrical and computer engineers most in demand
 - 16 S&E occupational series covered
 - HQ AF/DPL memo dated 24 Nov 03 provides guidance on execution and reporting
- **Methodology:** One time lump sum payment; installation CC approves. POM'd activity starting in FY04; SAF/AQR conducts annual requirements review IAW Development Teams per CSAF Total Force Development
- **FY04:** \$8.3 M



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Civilian S&E Retention Allowance

- **Description:** SecAF-accelerated tool to target civilian workforce through retention allowances
- **Purpose:** To retain civilian S&Es with critical skills considering acceptance of outside job offers with industry/academia/other government agencies (up to 25% of base salary)
- **Recipients:** Experienced civilian S&Es that we want to retain who are considering departure from the Air Force
 - 16 S&E occupational series covered
 - HQ AF/DPL memo dated 24 Nov 03 provides guidance on execution and reporting
- **Methodology:** One time payment. Started w/ FY03 AFMC \$\$
POM'd activity starting in FY04; coordinated with S&E Functional Management annual requirements review in accordance with Development Teams per CSAF's Total Force Development vision. Ultimately governed by local supervisors.
- **FY04:** \$1.7 M



Co-Op Central Funding

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- **Purpose: Target high potential college students for future Air Force employment**
- **Background**
 - **College students hired while going to school**
 - **Co-op Program funded in FY03 POM**
 - **S&E share is approximately 120 per year across FYDP**
 - **Cost includes salary plus student loan repayment**
- **Current Status**
 - **Program funded as part of workforce shaping initiative for FY03 - FY08**
 - **On schedule; final guidance has gone out to the field**



Civilian S&E Recruitment and Retention Initiatives Covered

Occupational Series

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- **0180 Psychology**
- **0801 General Engineering**
- **0806 Materials Engineering**
- **0830 Mechanical Engineering**
- **0840 Nuclear Engineering**
- **0850 Electrical Engineering**
- **0855 Electronics Engineering**
- **0858 Biomedical Engineering**

- **0861 Aerospace Engineering**
- **0893 Chemical Engineering**
- **0896 Industrial Engineering**
- **1310 Physics**
- **1320 Chemistry**
- **1515 Operations Research**
- **1520 Mathematics**
- **1550 Computer Science**



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Back-Up

■ **Back-Up**



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Military Initiatives Funding

Initiatives	FY03	FY04	FY05	FY06	FY07
Critical Skills Retention Bonus (CSRB)	\$14.0	\$13.6	\$15.1	\$14.1	\$14.1
Technical Degree Sponsorship Program (was CSP)	\$1.6	\$3.4	\$3.5	\$3.6	\$3.7
Airman Education & Commissioning Program (AECP)	\$3.9	\$4.8	\$5.5	\$5.7	\$5.9
Total	\$19.5	\$21.8	\$24.1	\$23.4	\$23.7



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Civilian Initiatives Funding

Initiatives	FY03	FY04	FY05	FY06	FY07
Group Retention Allowance	\$2.6*	\$13.1	\$13.7	\$14.4	\$15.0
Civilian Career Program Relocation Bonus	.880	.880	.900	.900	.900
Civilian Recruitment Bonus for College Recruits	1.23	1.56	1.92	2.29	2.69
Civilian Student Loan Repayment Program	3.01	6.09	12.30	17.12	21.06
Civilian S&E Recruitment bonus	\$4.4	\$8.3	\$8.5	\$8.9	\$9.4
Civilian S&E Retention Allowance	\$1.7	\$1.7	\$1.8	\$1.9	\$1.9
Co-op Central Funding	\$0.9	\$1.8	\$2.7	\$3.4	\$4.3
Total	\$12.9	\$29.3	\$32.6	\$35.8	\$39.2

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2003 S&E Retention Survey and Pay Comparison

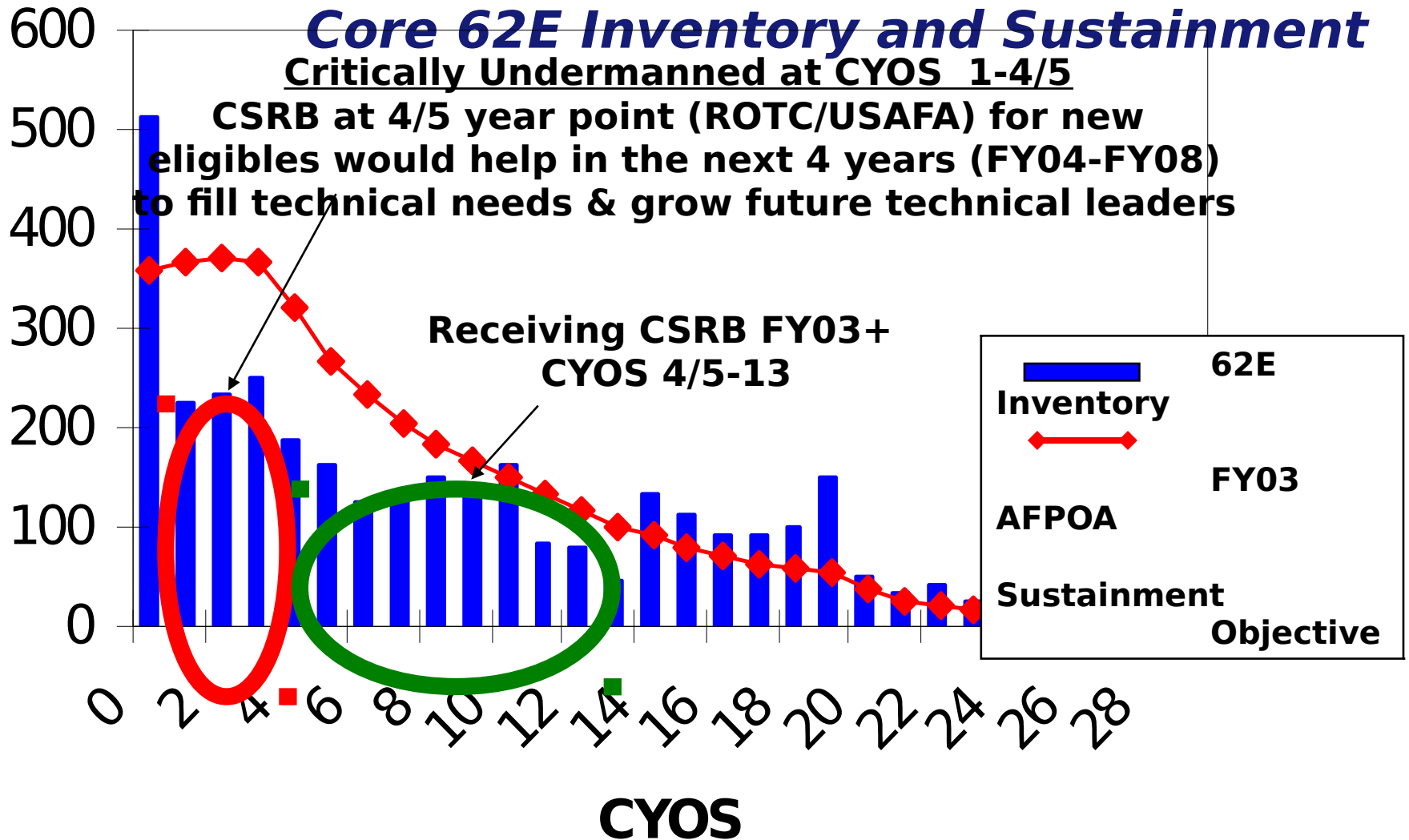


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FY03 62E Number/Grade Distribution

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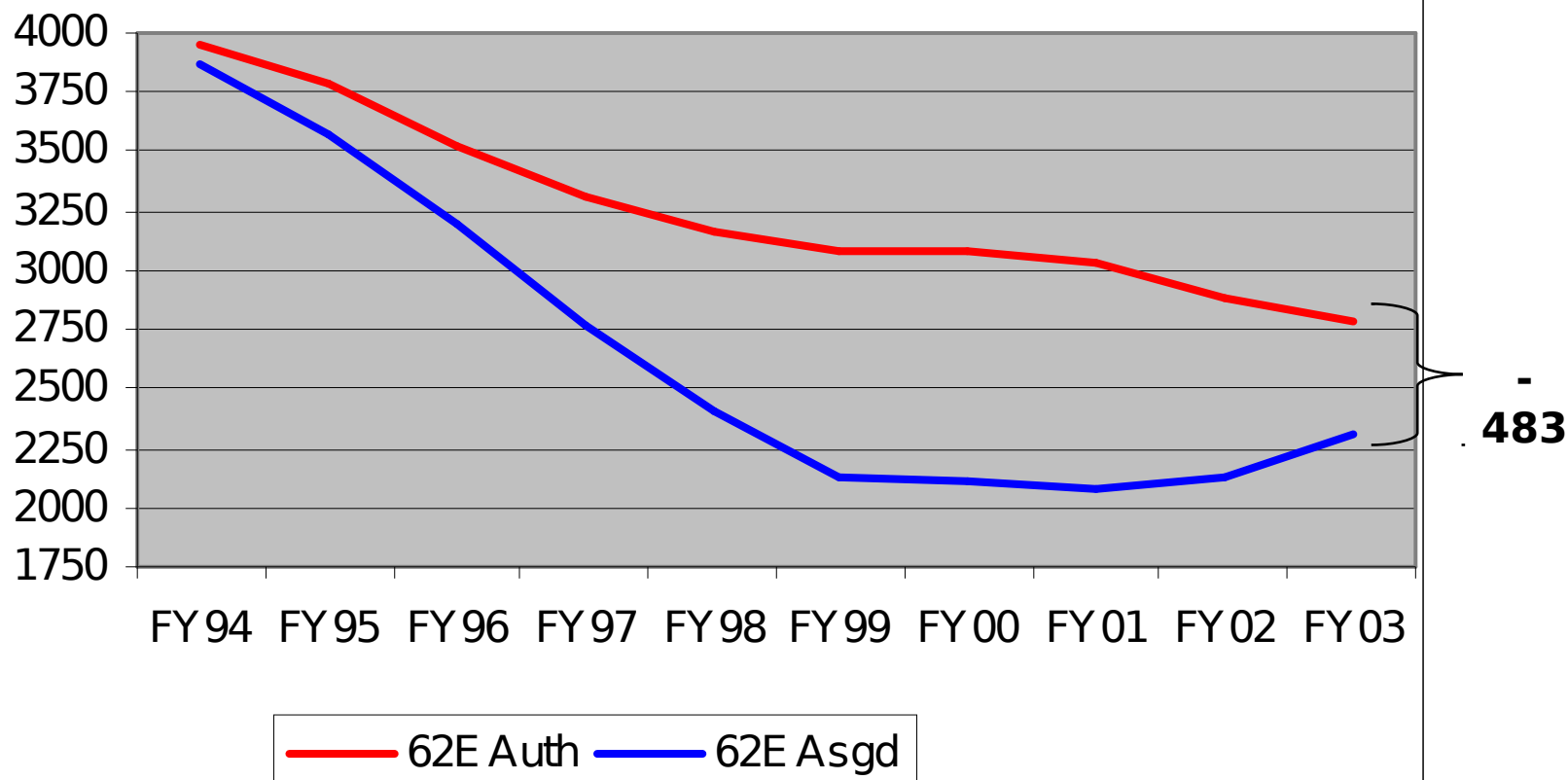




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Engineer Assigned vs. Authorized

**62E Manning (O-1 thru O-6)
FY03 Historical Data**





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MIL, CIV and INDUSTRY Pay Comparisons

OCCUPATION	Base Salary	Non-Taxable Allowances ¹	Employee Costs ²	TSP /401K	Add'l Taxable Income ³	Fed Tax Liability ⁴	Total Compensation ⁵	Net Pay/Year ⁶
Military Engineer O3 at 4 year point	\$48,234	\$15,072	\$4,440	0	0	\$4,194	\$63,306	\$54,672
Civ Engineer 08XX GS-12-01 Special Salary Rate	\$58,296	0	\$8,220	0	\$1,000	\$5,851	\$59,296	\$45,225
Non-Government Engineer 4 Year Average Salary (NBS 2003)	\$70,000	0	\$8,640	0	\$2,000	\$7,764	\$72,000	\$55,596

¹ Housing (WPAFB) and Subsistence
² Med (0/225/225), Dental (20/0/0), Life Insurance (20/25/25), Basic Retirement (~1.5%) (0/40/40), Social Security (280/325/340) and Medicare(50/70/80)
³ Bonus

⁴ Based on Base Pay + Additional Taxable Income with Married Filing Jointly and Standard Deduction (\$15,600)

⁵ Base Salary + Non-Taxable Allowances+ Bonus

⁶ Total Compensation - Fed Tax Liability - Employee Costs



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MIL, CIV and INDUSTRY Pay Comparisons

OCCUPATION	Base Salary	Non-Taxable Allowances ¹	Employee Costs ²	TSP/401K	Add'l Taxable Income ³	Fed Tax Liability ⁴	Total Compensation ⁵	Net Pay/Year ⁶
Military Engineer O3 at 4 year point	\$48,234	\$15,072	\$4,440	0	0	\$4,194	\$63,306	\$54,672
Civ Engineer 08XX GS-13-01 WPAFB	\$69,114	0	\$8,580	0	\$1,000	\$7,479	\$70,114	\$54,055
Non-Government Engineer Non-Competing (WPAFB) and Subsistence Med (0/225/225), Dental (20/0/0), Life Insurance (20/25/25), Basic Retirement (~1.5%) (0/40/40) 4 Year Average Salary (NBS 2003) Social Security (280/340/340) and Medicare(50/80/80) Bonus	\$70,000	0	\$8,640	0	\$2,000	\$7,764	\$72,000	\$55,596

⁴ Based on Base Pay + Additional Taxable Income with Married Filing Jointly and Standard Deduction (\$15,600)

⁵ Base Salary + Non-Taxable Allowances+ Bonus

⁶ Total Compensation - Fed Tax Liability - Employee Costs



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2003 AF Retention Survey

Career Intent of 2003 Officers with 3 - 5 Years of Service

<i>Rank</i>	<i>All Non-pilots</i>	<i>62XX</i>
Company Grade (3 - 5 YOS)	n=1,664	n=203
% Stay until 20 years	45	46
% Separate before 20 years	36	34
% Undecided	19	20

Career intentions for the 62XXs do not differ from the career intent of all other non-pilot officers



2003 AF Retention Survey

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- Percent of 62XX Officers (3-5 years of service) Reporting What Influences Them to Make the Air Force a **Career** (very strong or strong responses)

Career Influence	62X n=93		All Non-pilots n=746		Diff. in Rank
	Rank	%	Rank	%	
Retirement program that affects you	1	80	2	79	-1
Job security	2	73	4	71	-2
Patriotism	3	70	1	85	2
Availability of dependent medical care	4	64	5	70	-1
Availability of medical care	5	63	3	75	2
Ability to contribute to the unit mission	6	61	7	65	-1
Opportunities to further your academic education	7	61	6	66	1
Choice of job assignment	8	59	9	63	-1
Bonuses/Special Pay	9	59	19	48	-10
Availability of dental care	10	54	12	58	-2
Say in base of assignment	11	54	13	56	-2
Pay and allowances	12	54	8	64	4



2003 AF Retention Survey

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- Percent of 62XX Officers (3-5 years of service) Reporting What Influences Them to **Separate** from the Air Force (very strong or strong responses)

Separation Influence	62X n=69		All Non-pilots n=598		Diff. in Rank
	Rank	%	Rank	%	
Availability of comparable civilian jobs	1	61	1	52	0
Compatibility with spouse career/job	2	59	2	49	0
Number of PCS moves	3	44	4	42	-1
Potential for outsourcing and privatization of career field	4	38	9	33	-5
Air Force officer/enlisted evaluation systems	5	38	12	29	-7
Choice of job assignment	6	37	3	43	3
Satisfaction with your current career field	7	37	8	37	-1
Overall job satisfaction	8	36	6	39	2
Say in base of assignment	9	33	5	41	4
Opportunities for skills training/professional development	10	30	11	29	-1
Promotion opportunity	11	25	23	20	-12
Recognition of your efforts	12	22	13	28	-1
Pay and allowances	20	14	27	17	-7



1999 AF Retention Survey

U.S. AIR FORCE

- Percent of 62XX Officers Reporting What Influences Them to Make the Air Force a **Career** (very strong or strong responses)

Career Influence	62X n=36	
	Rank	%
Availability of medical care	1	65
Overall job satisfaction	2	62
Choice of job assignment	3	59
Opportunities to further your academic education	4	58
Retirement program that affects you	5	54
Leadership at unit level	6	53
Job security	7	50
Availability of dependent medical care	8	48
Availability of dental care	9	47
Say in base of assignment	10	43
Availability of commissary services	11	36
Availability of dependant dental care	12	32
Pay and allowances	20	14



1999 AF Retention Survey

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- Percent of 62XX Officers Reporting What Influences Them to **Separate** from the Air Force (very strong or strong responses)

Separation Influence	62X n=61	
	Rank	%
Choice of job assignment	1	64
Say in base of assignment	2	59
Retirement program that affects you	3	53
Availability of comparable civilian jobs	4	52
Air Force officer/enlisted evaluation systems	5	37
Promotion opportunity	6	32
Pay and allowances	7	32
Overall job satisfaction	8	31
Leadership at Unit level	9	31
Number of PCS moves Opportunities for skills training/professional development	10	29
Compatibility with spouse career/job	11	28
Leadership at wing or equivalent level	12	23

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S&E Awards



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S&E Awards

- **Three new AF-level awards created to recognize the S&E workforce**
 - **The Air Force Outstanding Scientist**
 - **Air Force Outstanding Engineer**
 - **Air Force Outstanding Science and Engineering Educator Awards**
- **Two awards, AF Outstanding Scientist and AF Outstanding Engineer, have multiple award categories**
 - **Recognize different levels of experience (junior to senior levels) for both military and civilians**
 - **Categories based on the number of years an individual has worked in a specific area**
- **Awards open to all AF S&Es regardless of duty location or type of S&E work being performed**
- **Winners at the MAJCOM/FOA/DRU level will compete at the AF level**
- **SEAC members vote to select the winners**
- **Winners receive a trophy, recognition ribbon/pin, and a three-day pass**



2002 AF S&E Award Winners

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- **AF Outstanding Scientist**
 - Junior Military Capt Wynn Sanders AFMC
 - Mid Grade Military Maj Scott Walter AFMC
 - Senior Military Lt Col JoAnn Erno AFMC
 - Junior Civilian Dr. Richard Vaia AFMC
 - Mid Grade Civilian Mr. Kenneth Levi AETC
 - Senior Civilian Dr. Dennis Goldstein AFMC
 - Team Analysis Division ACC
- **AF Outstanding Engineer**
 - Junior Military Capt Orval Powell ACC
 - Mid Grade Military Capt Shawn McCamish ACC
 - Senior Military Maj William Hack AMC
 - Junior Civilian Ms. Charlotte Gerhart AFMC
 - Mid Grade Civilian Mr. Curtis Cadwallader AFMC
 - Senior Civilian Mr. Kenneth Boydston ACC
 - Team WCMD AFMC
- **AF Outstanding Science and Engineering Educator**
 - Overall Lt Col David Jacques AETC

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S&E Career Field Statistics



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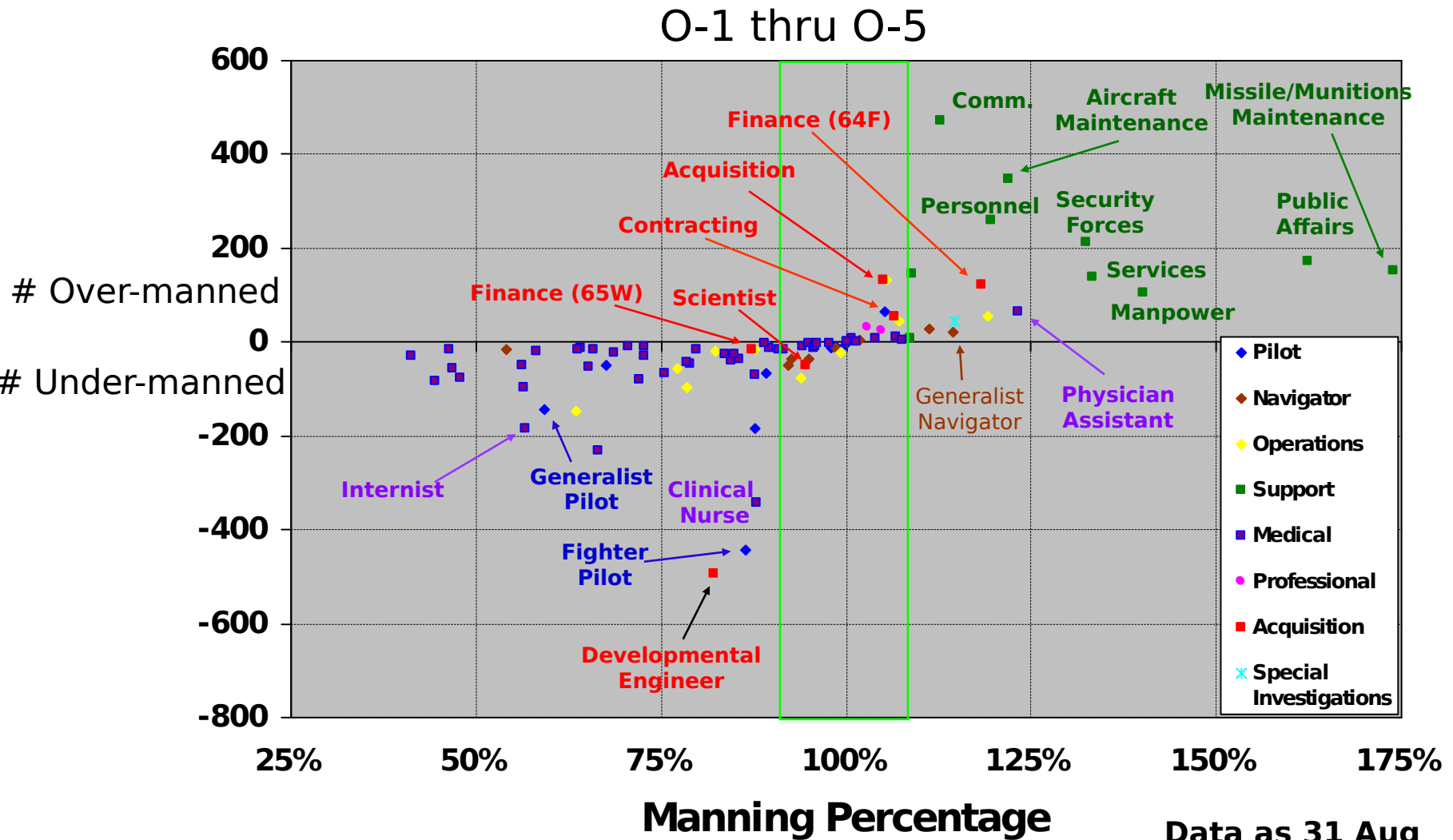
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Current AF Manning

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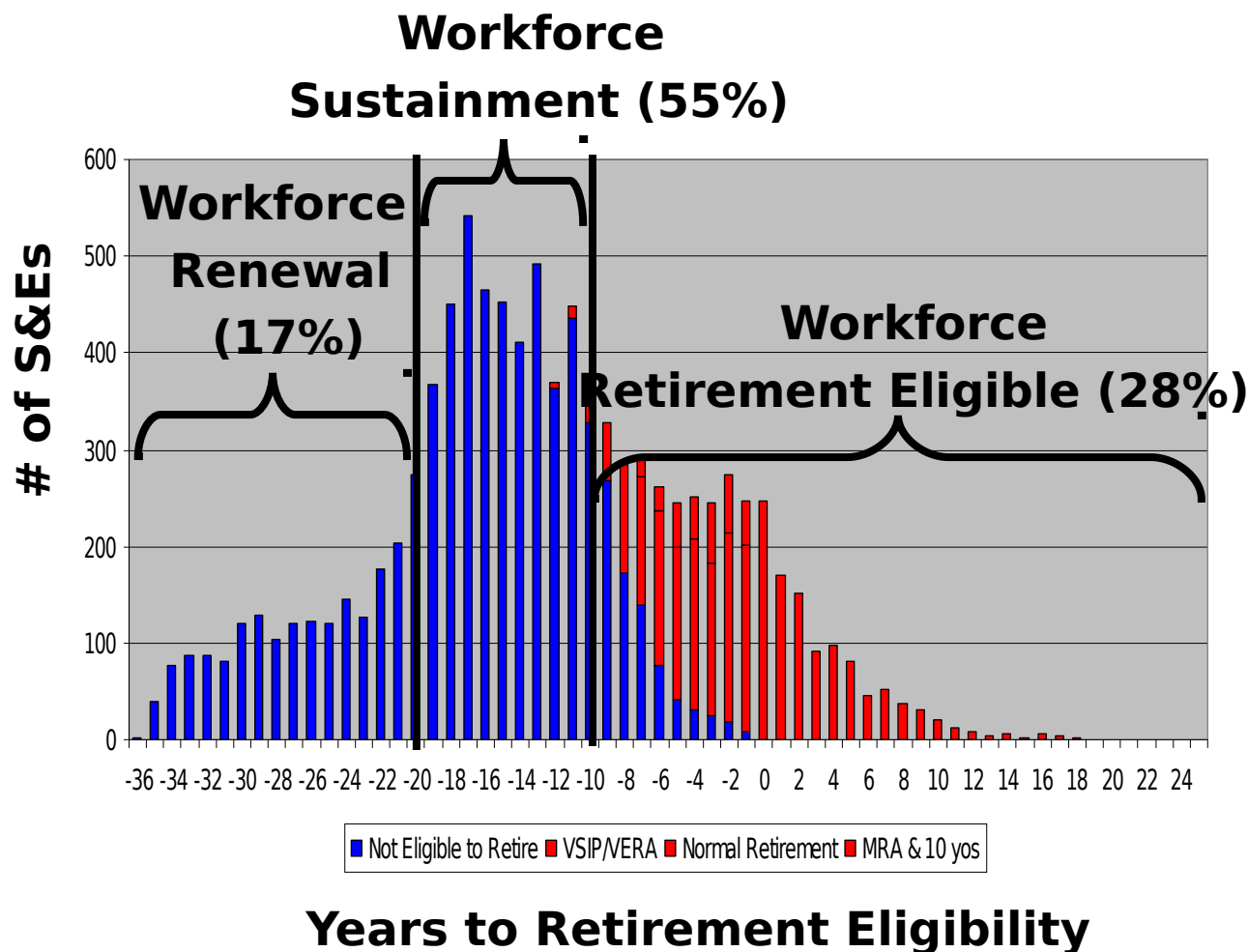


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FY04 Civilian S&E Inventory Population vs. Retirement Eligibility



- **Unbalanced Distribution of Workforce**
- **Retirement Eligible: 2781 experienced S&Es**
- **More than 1,000 employees are eligible to retire (Red) than are currently in Workforce Renewal**
- **AF needs to attract and retain critical S&E talent via recruitment and retention bonus programs for Workforce Renewal and Workforce Sustainment**

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Scientist and Engineer Advisory Council (SEAC)



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Scientist and Engineer Advisory Council (SEAC)

- **The SEAC is responsible for approving policy and overseeing implementation of**
 - Air Force policies, programs and actions designed to benefit the S&E workforce**
- **Members: GOs and SESs representative of the composition of the workforce**
- **Recruitment Strategy**
- **Policy areas within the purview and influence of the SEAC include, but are not limited to:**
 - **Military Accession Strategy**
 - **Retention Strategy**
 - **Education & Training**
 - **Advanced Academic Degrees**
 - **Acquisition Professional Development Program**
 - **Long Term Training**
 - **Tuition Assistance**
 - **Professional Military Education**
 - **Boards & Panels**
 - **Non-Rated Prioritization Plan**
- **Development**
 - **Career Development Guide**
 - **Mentoring Web-Site**
 - **AF Intern Program**
 - **Career Broadening**
 - **Promotion Evaluation Patterns**
 - **Boards & Panels**
- **Workforce Analysis**
 - **Requirements**
 - **Future Requirements**
- **Workforce Shaping Initiatives**
- **Recognition Programs**

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Military Force Development



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Military Force Development

- **The AF's method of growing leaders at all levels**
 - **Equips Airmen with the education, training and experience they will need for the future**
- **Accomplishes the AF missions today and tomorrow**
 - **No more “square filling” for education, training and assignments**
 - **Deliberately improves your skills**
 - **Uses your skills more effectively**
 - **Meets your goals and expectations and explains more clearly your potential and opportunities**
- **Gets the right people in the right job at the right time with the right skills to fight and win**



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Military Force Development: and Events

Players



Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Summer Assignment Cycle
(RNLTD Jun-Sep)

Fall Assignment Cycle
(RNLTD Oct-Jan)

Spring Assignment Cycle
(RNLTD Feb-Mar)

Events

S&E
DT

Special Selection (AAS, Boards)

PB
LTC
(Line)

S&E
DT

PB
Maj
(Line)

S&E
DT

DE
Board
s

PB
Col
(Line)

Training (Specialty, Academic, PME)	Officer Development Plan
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Military Development Teams



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Military Development Teams (DT)

- **Established by the CSAF in his 6 Nov 02 Sight Picture**
 - **Responsible for managing Force Development within a career field**
 - **Responsible for oversight of the development of personnel to meet functional community requirements**
- **Composition:**
 - **Career Field Manager**
 - **Appropriate functional representatives**
 - **AFPC assignment team representative**
 - **Appropriate MAJCOM POCs**



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Military Development Team Responsibilities

- **Responsible for developmental oversight of personnel to meet functional community requirements**
 - **Considers unique characteristics & requirements of career field with development opportunities to meet institutional needs when determining career progression**
 - **Evaluates developmental opportunities within the functional force structure**
 - **Recommends appropriate developmental assignments and vectors for individual officers within and outside the career field**
 - **Provides developmental feedback to officers and commanders via the Officer Development Plan**
 - **Recommends individual officers for developmental assignments (e.g., Education, Special Duty)**
 - **Provides input into the Special Selection processes as needed (e.g., Squadron Command, Developmental**

Provide oversight for S&E career field health and development



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61 DT Membership

- **SAF/AQR (Chair) Col Craig Kimberlin (S&E CFM)**
- **AFSPC (Space) Col Bill Doyle**
- **USAFA Col John Andrew**
- **AFMC (Acquisition) vacant**
- **AFRL (Labs) Col Don Erbschloe**
- **ACC (Operational) Col Kid Curry**
- **AFOTEC (Test) Col Scott Goehring**
- **AFIT Col Dave LaRivee**
- **AFTAC (Chem/Biol) Col Allan Beck**
- **AFSAA Col Jerry Diaz**
- **NRO Col Doug Loverro**
- **AF/XON (C-CBRN) Col Jimmy Hyatt**
- **AFMC (Behavioral) Col Doc Warr**



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62 DT Membership

- **SAF/AQR (Chair) Col Craig Kimberlin (S&E CFM)**
- **SMC (Space) Col Rakesh Dewan**
- **AFMC (Engineering) Col Steve Petersen**
- **ESC (C3I) Col Steven Rogers**
- **AEDC (Test) Col Vince Albert**
- **AAC (Munitions) Col Paul Coutee**
- **ALC (Sustainment) Col Rob Fisher**
- **AFRL (Labs) Col James Godsey**
- **AIA (Intel) Col Bob Downs**
- **ASC (Aircraft) Col Paul Copp**
- **AFIT Vacant**
- **NRO Col Laura Kennedy**

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Officer Development Plan (ODP)



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Officer Development Plan

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- **Officer Development Plan (ODP) - a modified Preference Worksheet**
 - **Capabilities added for individual inputs for near-term assignments, long-range intentions, and developmental goals**
 - **ODP provides communication between officers, their leaders, assignment team, and their Development Team (DT)**
- **Each officer will complete their ODP and forward it to their commander or staff-level equivalent**
 - **Commanders review the ODP, and provide feedback**
 - **Ensures it is a portrayal of the officer's goals as well as a realistic reflection of their abilities and future developmental objectives**
- **The ODP is forwarded to the DT and**

Every officer should carefully craft their ODP and keep it current!



Officer Development Plan

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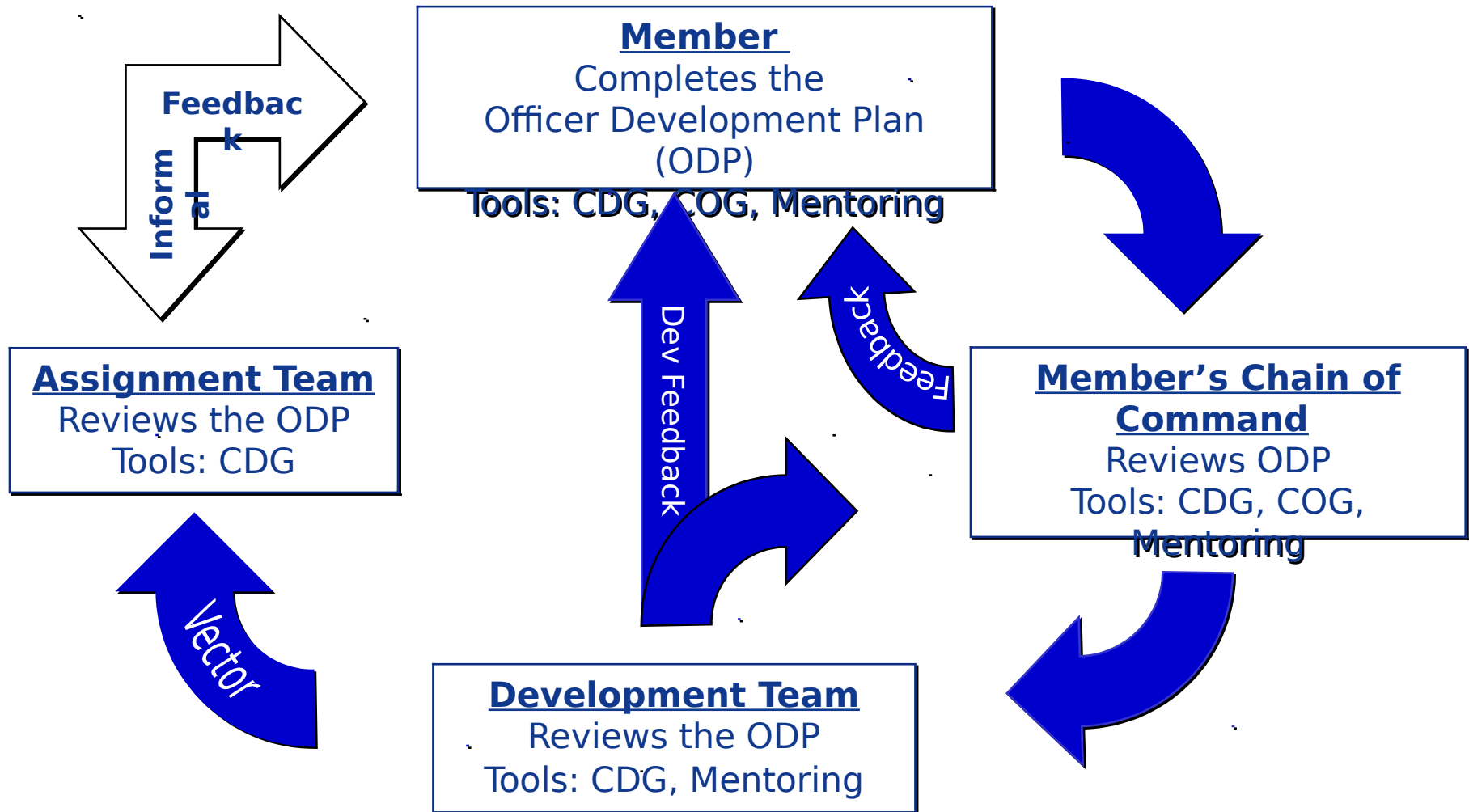
- **After providing feedback and making any needed adjustments, commanders add their comments and forward the ODP to the DTs for their review**
 - **DTs review ODPs and provide feedback**
 - **The DTs then forward their recommendations to the applicable Officer Assignment Team (OAT)**
 - **DT recommendation serves as a “vector” to guide and assist OAT in the assignment process**
 - **Based on their best judgment, DTs will then provide developmental vectors via ODP**
- **The completed ODP will also be used by the OAT**
 - **OATs take the DT’s vectors and work to find the best match between the ODP, DT vectors, and Air Force Requirements**

The ODP is a developmental game plan ... not just a specific job request



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Developmental Review Process



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Developmental Education (DE)



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Developmental Education (DE)

- **Professional Military Education now called DE to reflect changed opportunities that reflect the evolving nature of force development**
 - **Not everyone needs the same “cookie-cutter” education to best serve the Air Force or the individual**
 - **New focus on providing the appropriate DE at the right time in your career**
 - **Scope of education and number of opportunities has increased significantly and will continue to rise over the next few years**

- **Three different levels of Developmental Education**
 - **First level - Basic Developmental Education, or BDE**
 - **Second level - Intermediate Developmental Education, or IDE**
 - **Third level - Senior Developmental Education, or SDE**



Developmental Education (DE)

U.S. AIR FORCE

- **Basic Developmental Education (BDE)**
 - The common leadership foundation required for future growth and responsibility
 - Builds upon skills from commissioning sources and technical training courses
 - Builds deep competencies within initial career field
 - **Examples: Aerospace Basic Course, SOS, the Air Force Intern Program, and AFIT**
- **Intermediate Developmental Education (IDE)**
 - Preparation for future duties, such as developmental assignments, command opportunity, and increased leadership responsibility
 - All officers will be managed deliberately and engaged in developmental activity
 - Many receive developmental assignments
 - May be outside primary career fields or within present functional family
 - Expands breadth of experience and widens perspectives on integrating tactical functions to meet the AF mission
 - **Examples: ACSC, AFIT, and the Naval Postgraduate School**
- **Senior Developmental Education (SDE)**
 - Further broadens awareness of issues facing the AF, DoD and National Security
 - Prepares senior officers to participate in the leadership of our institution
 - **Examples: Air War College, National War College, ICAF, and sister-service schools**



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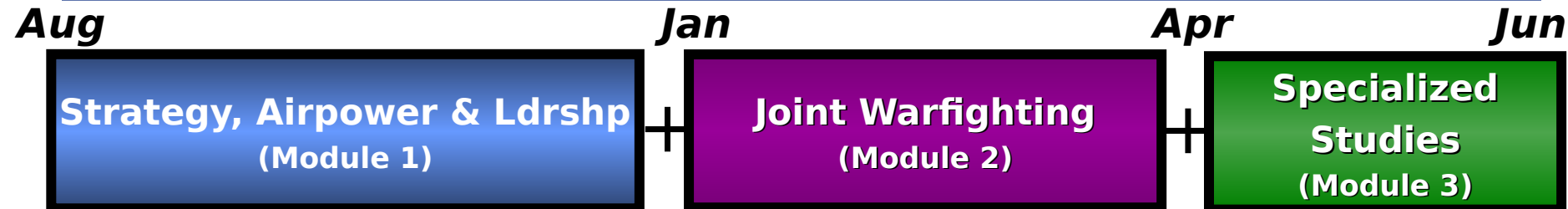
Developmental Education (DE)

- **ACSC and AFIT revamped**
 - **Better prepares officers for their follow-on assignments**
- **3 different IDE tracks can be pursued**
 - **Development beyond primary specialty**
 - **ACSC in residence - 3 modules**
 - **First: focuses on specific Air Force core competencies**
 - **Second: addresses AF contributions to joint warfighting**
 - **Third: learning about complementary areas outside of career field**
- **Education and modified ACSC**
 - **This program includes**
 - **Wide variety of AFIT degrees and fellowships**
 - **Robust version of the ACSC, distance-learning curriculum**
 - **Grants Joint PME Phase I credit**
- **ACSC by distance learning**
 - **Re-designed to better reflect our evolving mission**



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IDE Curriculum



12-18 Months



ACSC Distance Learning
[Reduced from 73 to 50 lessons]

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Advanced Academic Degrees



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Changes to Advanced Academic Degree (AAD)

Process

- **Transition from requirements-based to inventory-based system for AADs--meets Force Development concept**
 - **More opportunities across active duty force**
 - **Quotas increase substantially**
 - **FY05 - 1,650; FY07 - 1,900; FY08 - 1,974**
 - **Functional Development Teams will choose who goes to school at O-1 through O-3 level**
 - **DTs recommend O-4s to Developmental Education Designation Board**
- **AF/DP continues to develop process to implement inventory-based system**
- **Senior Leadership Guidance remains**
 - **Strong emphasis to fill S&E quotas. . .first!**
 - **SecAF focus on “high tech” degrees versus “soft core”**
 - **SecAF guidance: “AFIT first, then NPS, then AFIT/CI programs”**
 - **Better tracking/utilization of graduates by AFPC**



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DRAFT - Civilian S&E Force Development



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Civilian Force Development

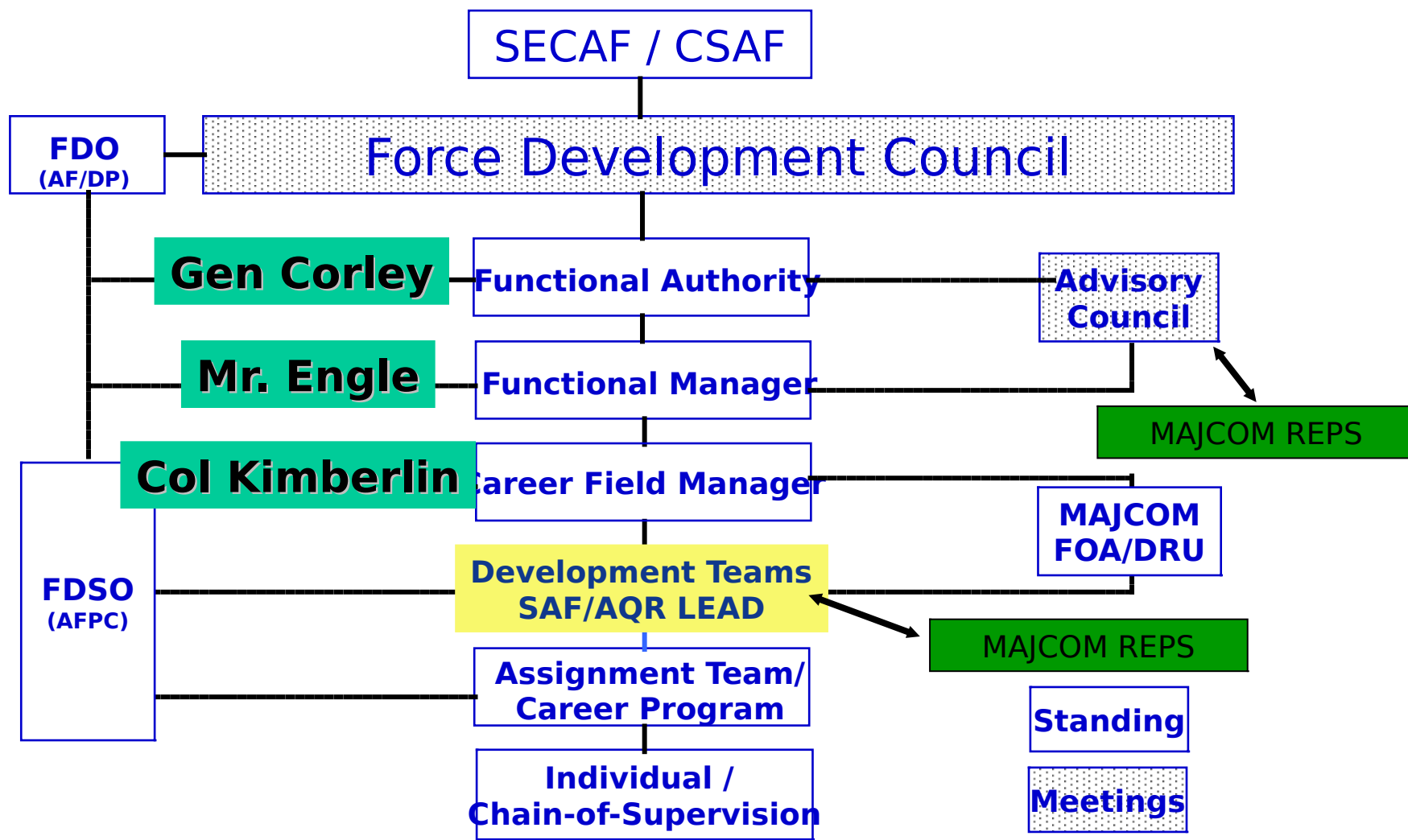
- Goal: Deliberate, connected, career-oriented development to enable the civilian element of Total Force Development
- **Civilian Force Development provides...**
 - *Clearly stated goals* **for development - Career Templates and Guides**
 - *Improved assessment* **of individuals via Career Development Plans and Development Teams**
 - *Connected development* **over the course of a career**
 - *Integrated leadership education* **through all levels (tactical, operational, strategic)**
- **Compatible with Officer Force Development - enables Total Force Management**





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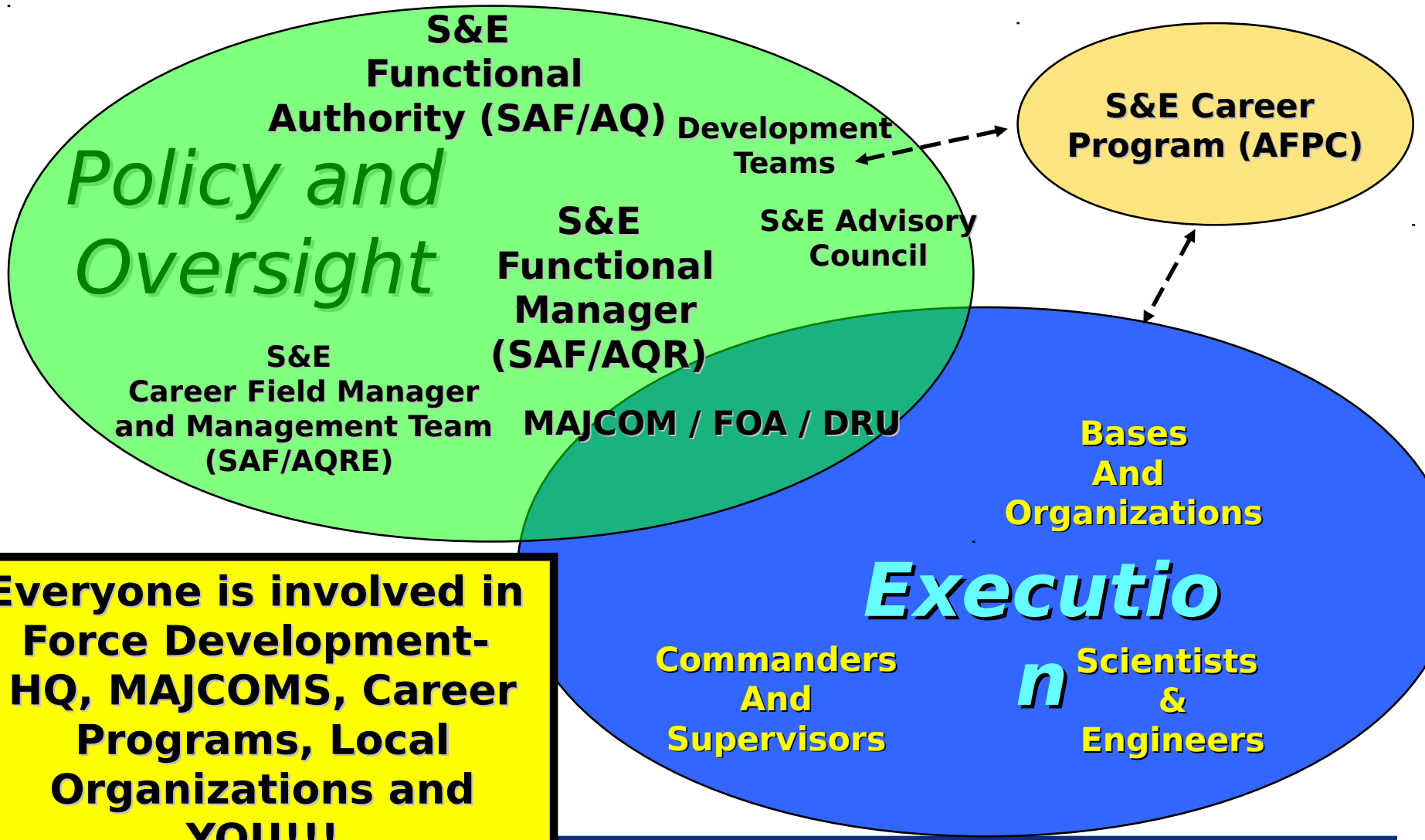
Force Development Management Structure





Roles and Responsibilities

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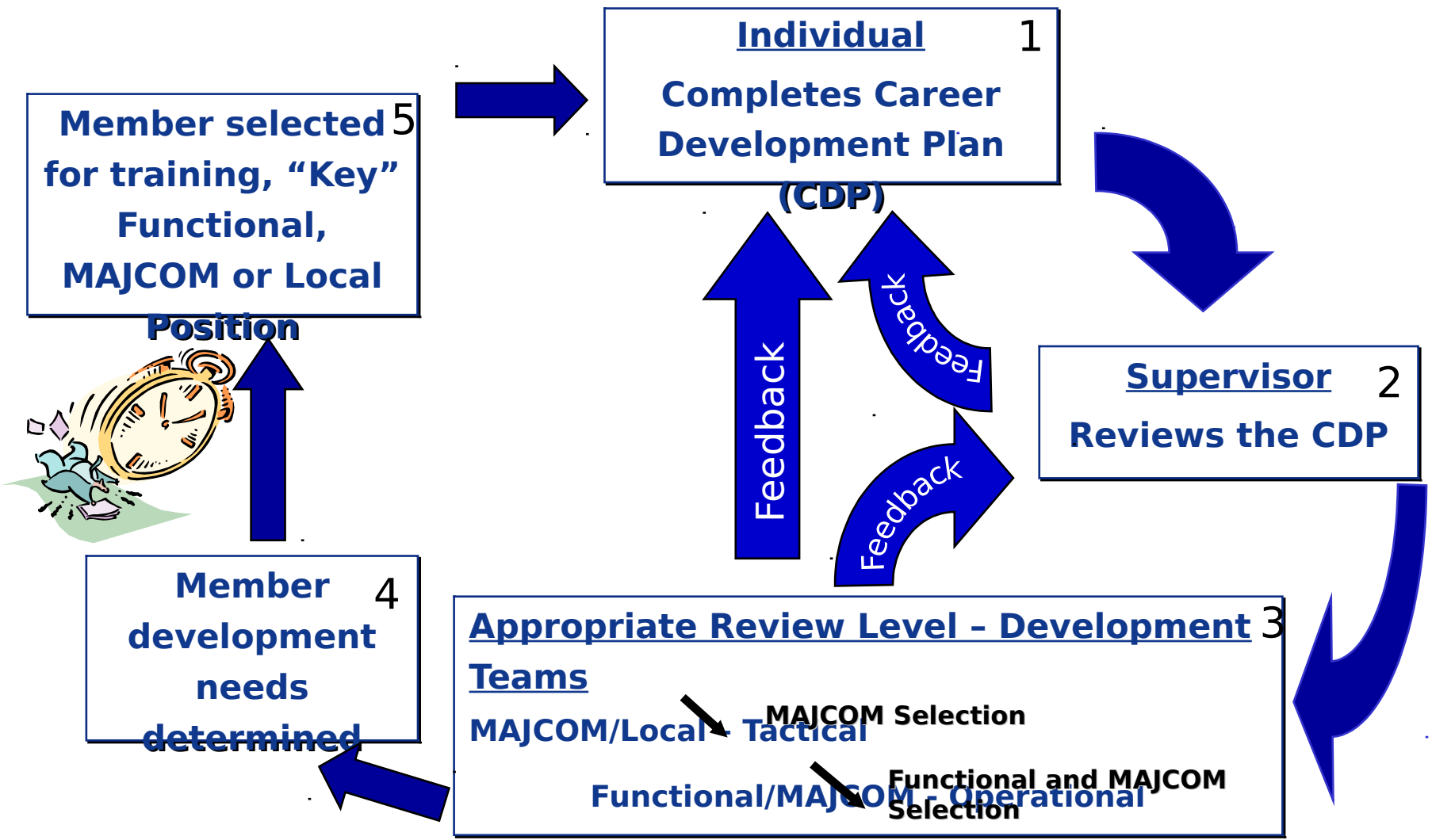
Everyone is involved in Force Development- HQ, MAJCOMS, Career Programs, Local Organizations and YOU!!!





S&E Force Development

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3 Levels of Leadership Development

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TACTICAL

LEAD/Partner

- Follow S&E Career Development Guide (CDG)
- Develop Depth & Initial Leadership Skills
- Eligible for Tactical Local positions to GS-15 Level

**MAJCOM
and /LOCAL**

OPERATIONAL GS 13-15

- Develop Breadth in another Function
- Further Develop Leadership Skills
- Be Mobile – SES Template
- Eligible for “key” S&E Leadership positions
- Functional review of self nominated and MAJCOM endorsed Candidates

**SAF/AQR and
MAJCOMs**

STRATEGIC GS-15

- Develop Corporate Strategic Leadership Skills and Greater Breadth
- Eligible for “KEY” AF GS-15 positions

**AFSLMO
SAF/AQR and MAJCOMs**





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3 Levels of Technical Development

TACTICAL

- Author on journal articles
- Ability to present technical project results
- Technical MS and/or PhD

LEAD/Partner

LOCAL and MAJCOM

OPERATIONAL GS 13-15

- Technical expert
- Direct large-scale projects
- Develop and maintain relationships with operational user
- Recognized by organization and peers as expert in the field

MAJCOMs and Local

STRATEGIC GS-15

- Leader in professional societies (IEEE, AIAA, ASME, etc)
- Adjunct professor
- Technical depth (Lab, ALC, SPO, Test Center, NAIC)
- Technical instructor
- Recognized as expert by external Society

MAJCOMs



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National Security Personnel System



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Need for Change to Civilian Personnel System

- **Demands an agile system for an agile adversary**
- **Provides a key pillar in the Defense Secretary's transformation initiative**
- **Allows civilians to contribute as a more integrated part of the total force**
- **Addresses high projected losses and keen competition**
- **Overcomes inflexible Title 5 system**
- **Implements tested DoD best practices**
- **Streamlines competing pay plans and personnel systems in the Department of Defense**



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NSPS and Best Practices (BP)

- **NSPS is the broad legislative vehicle**
- **Best Practices are the specific policies and procedures for staffing, pay, and performance management**

- **NSPS/BP System Tenets**
 - **Pay for Performance**
 - **Pay Banding of GS-Levels**
 - **Flexible Hiring Authorities**



Pay for Performance

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- **Rating cycle - 1 Jan - 31 Dec**
 - **March payout**
- **Seven standard DoD performance factors**
 - **Technical competence/problem solving**
 - **Cooperation/teamwork**
 - **Communication**
 - **Customer care**
 - **Resource management**
 - **Leadership/supervision**
 - **Contribution to mission accomplishment**



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NSPS/BP Classification and Pay:

Nonsupervisory Pay Banding

Career Group (CG)	Career Group Name	Level 1	Level 2	Level 3	Level 4
CG 1	Professional and Administrative Management	GS 5-12	GS 13-14	GS-15	Above GS-15
CG 2	Engineering support Scientific support Medical Support	GS 1-4	GS 5-7	GS 8-11	(GS-12 and above to CG 1)
CG 3	Business and Administrative Support	GS 1-4	GS 5-7	GS 8-10	(GS 11 and above to CG 1)



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Things NSPS Can Change

- **Staffing (hiring, assignment, advancement, removal, reduction in force)**
- **Job classification, pay (including certain premium pay), and performance management (includes General Accounting Office recommended criteria)**
- **Labor management relations**
- **Discipline, adverse actions, and appeals**



Things NSPS Can't Change

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- **Merit system principles (including veterans' preference provisions)**
- **Rules against prohibited personnel practices (political favoritism, nepotism)**
- **Anti-discrimination laws**
- **Leave and attendance; travel and subsistence**
- **Pay for political executives, firefighters**
- **Training**
- **Health insurance and retirement benefits**
- **Safety and drug abuse programs**



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Back-up



Pay for Performance

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- **Factors “designed” for position – can be weighted, only specific ones used, etc.**
 - **Must equal 100**
- **Benchmark Performance Standards**
 - **Guide for evaluation and scoring**
- **Score converted into “Shares” (payout)**
 - **Basic pay increase and/or**
 - **Performance incentive**



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NSPS/BP Staffing

External Hiring

- **Initial career appointment - 3 yr probation**
- **Preserve veterans' preference**
- **Delegated Examining Unit (DEU)**
 - **Refer all candidates (eliminates “rule of three”)**
 - **Categorical ranking**
- **Scholastic Achievement Appointment**
 - **3.0 overall - 3.5 in field of study**
 - **May be used for any type of position**
- **On-the-spot**
 - **Severe shortage, unique quals, high turnover, special salary rate, exceptional need**

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S&E Contact Information



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Contact Information

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S&E Career Field Management Website	http://www.safaq.hq.af.mil/aqre/se	

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